

FIGURE 1

HIERARCHICAL LEVEL

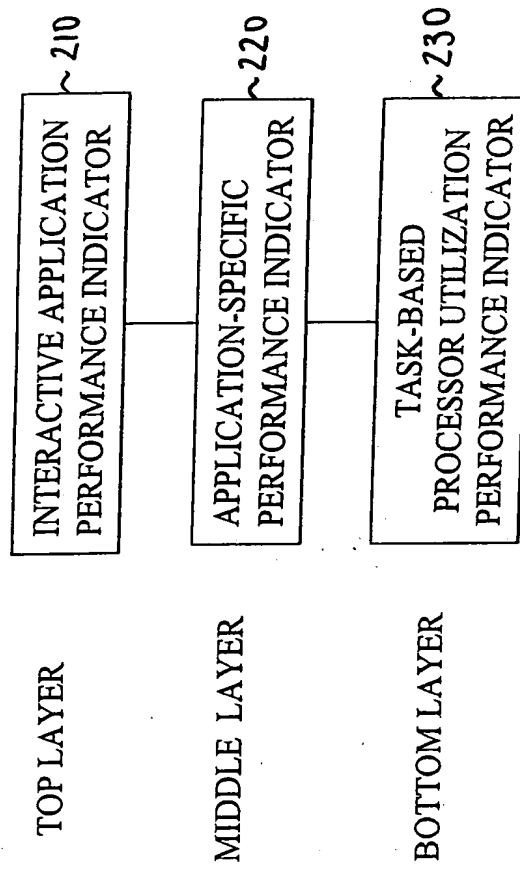


FIGURE 2

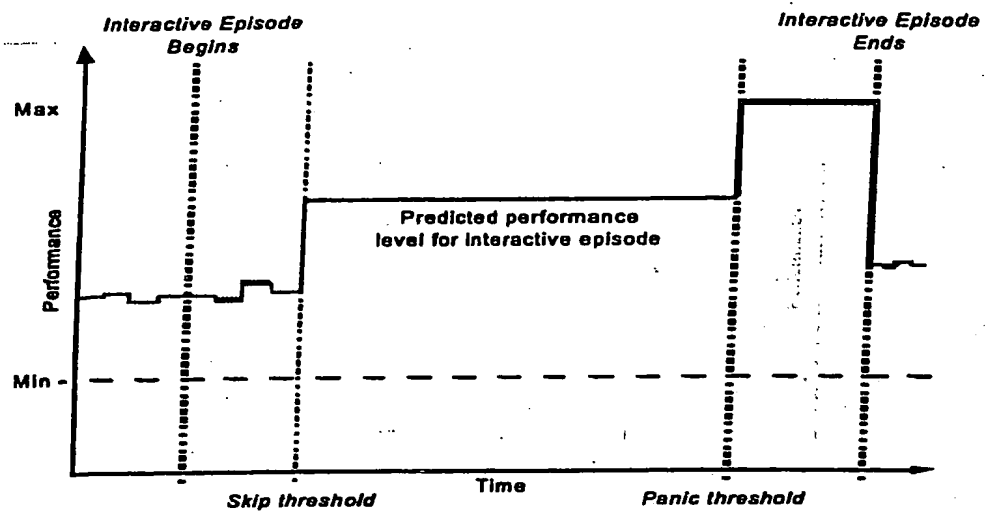
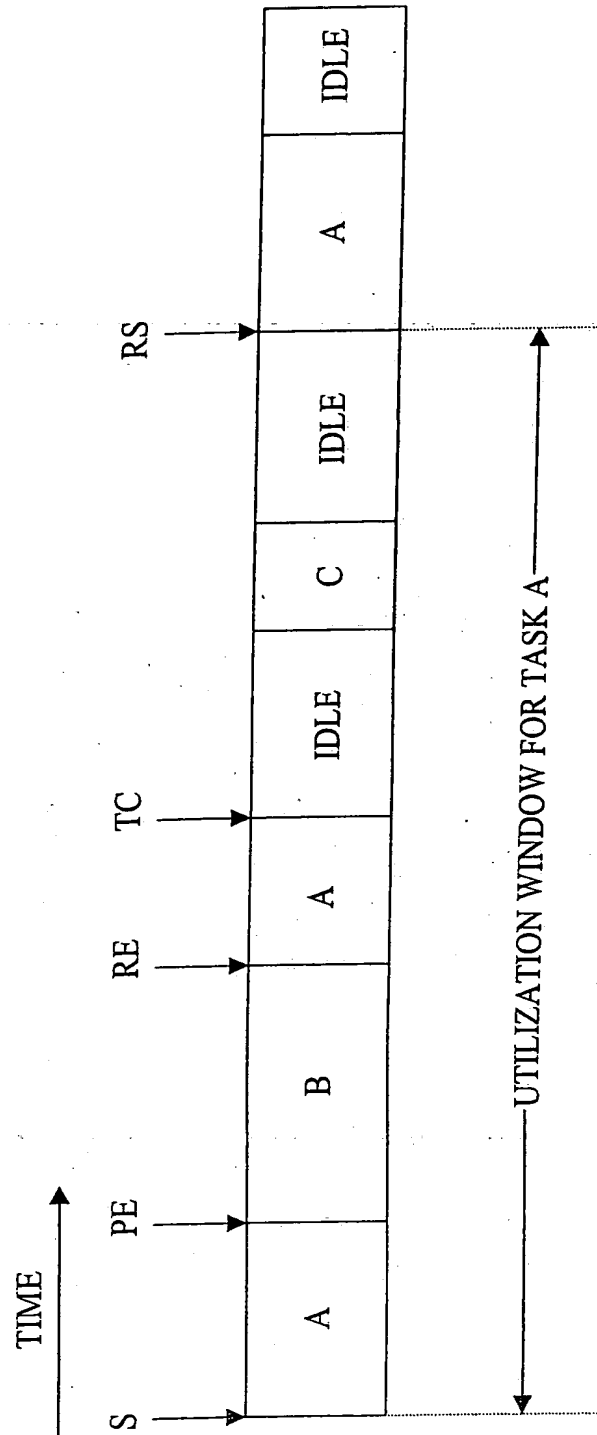


FIGURE 3

**FIGURE 4**

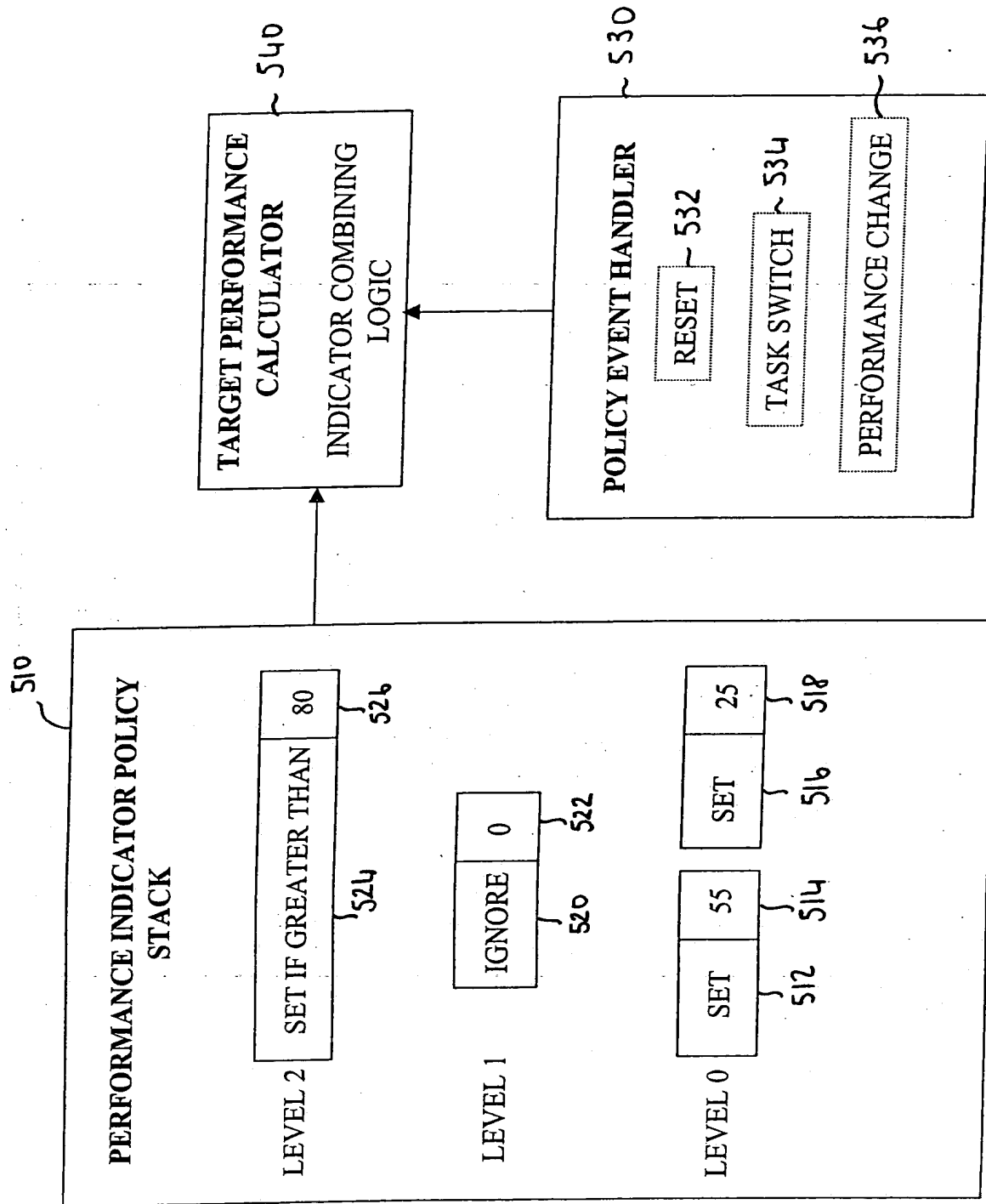


FIGURE 5

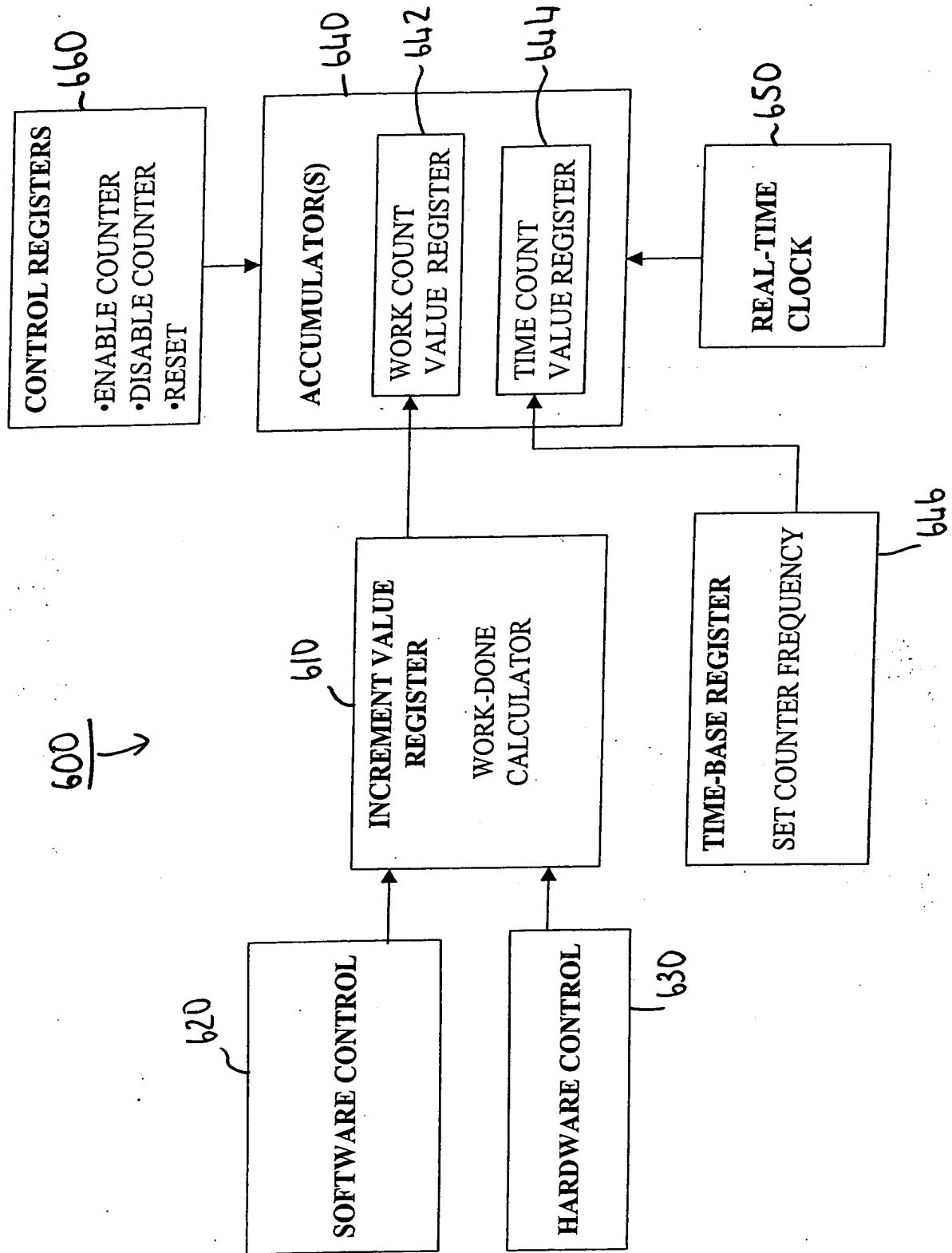


FIGURE 6

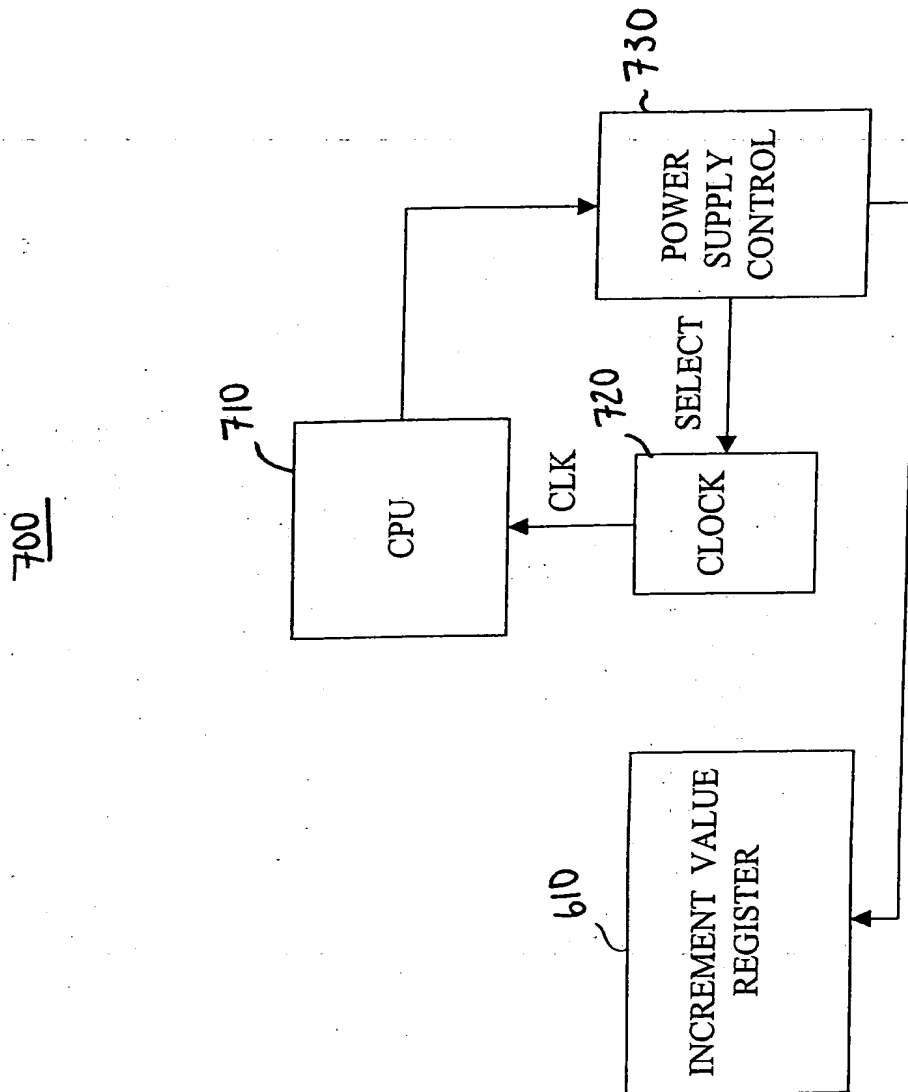


FIGURE 7

| | Execution statistics | | | MPEG decode | |
|-----------------------------------|----------------------|------|-------|-------------|-----------------|
| | Length (s) | Idle | Sleep | Ahead (s) | Exactly on time |
| Danse De Cable 320x160 +audio | 247.1 | 54% | 23% | 148.10 | 6 |
| Legendary 352x240 +audio | 19.4 | 27% | 4% | 68.74 | 1012 |
| LongRun Present Technique | | 33% | 13% | 7.20 | 19 |
| Red's Nightmare 320x240 | 49.1 | 24% | 7% | 4.79 | 65 |
| LongRun Present Technique | | 48% | 36% | 26.31 | 5 |
| Red's Nightmare 480x360 | 49.3 | 32% | 13% | 16.53 | 74 |
| LongRun Present Technique | | 22% | 15% | 12.48 | 87 |
| Roadkill Turtle 304x240 +audio | 121.3 | 18% | 11% | 8.17 | 139 |
| LongRun Present Technique | | 46% | 19% | 64.93 | 5 |
| Sentinel 320x240 +audio | 35.6 | 25% | 4% | 33.34 | 237 |
| LongRun Present Technique | | 28% | 10% | 11.05 | 80 |
| SpecialOps 320x240 +audio | 60.8 | 19% | 5% | 6.32 | 231 |
| LongRun Present Technique | | 30% | 11% | 19.01 | 129 |
| LongRun Present Technique | | 20% | 5% | 12.67 | 305 |

FIGURE 8

| | LongRun | | | | | Present Technique | | | | | Mean performance reduction over LongRun |
|-----------------------|--|-----|-----|-----|-----------------|--|-----|-----|-----|-----------------|---|
| | Fraction of time at each performance level (Mhz) | | | | Mean perf level | Fraction of time at each performance level (Mhz) | | | | Mean perf level | |
| | 300 | 400 | 500 | 600 | | 300 | 400 | 500 | 600 | | |
| Danse De Cable | 6% | 19% | 33% | 54% | 89% | 51% | 48% | 0% | 0% | 59% | 34% |
| Legendary | 0% | 3% | 17% | 79% | 96% | 0% | 8% | 88% | 4% | 82% | 15% |
| Red's Nightmare small | 11% | 35% | 35% | 19% | 80% | 95% | 2% | 0% | 3% | 52% | 35% |
| Red's Nightmare big | 0% | 5% | 21% | 74% | 95% | 0% | 0% | 90% | 10% | 85% | 11% |
| Roadkill Turtle | 3% | 10% | 23% | 64% | 92% | 1% | 97% | 1% | 0% | 66% | 28% |
| Sentinel | 0% | 0% | 14% | 86% | 97% | 0% | 0% | 93% | 7% | 84% | 13% |
| SpecialOps | 1% | 2% | 14% | 83% | 96% | 0% | 2% | 93% | 4% | 83% | 14% |

FIGURE 9

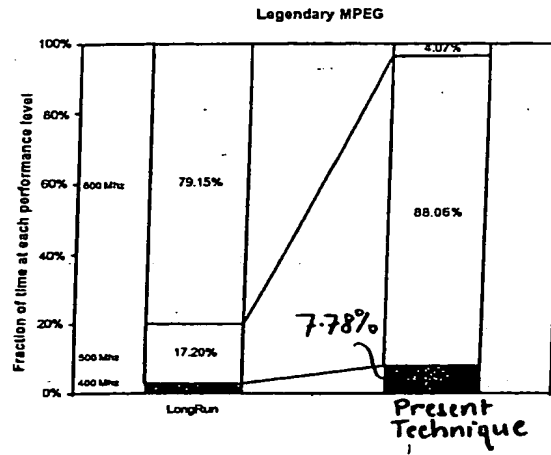


FIGURE 10A

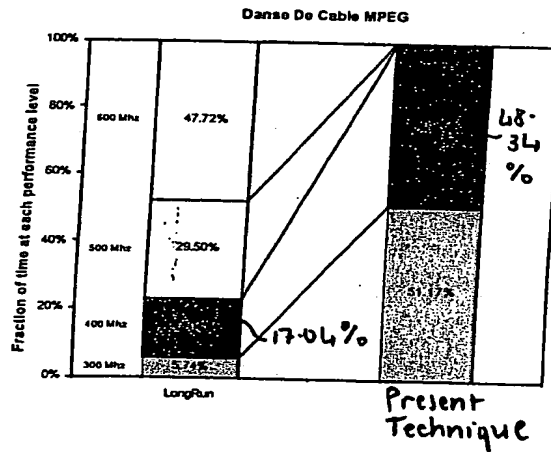


FIGURE 10B

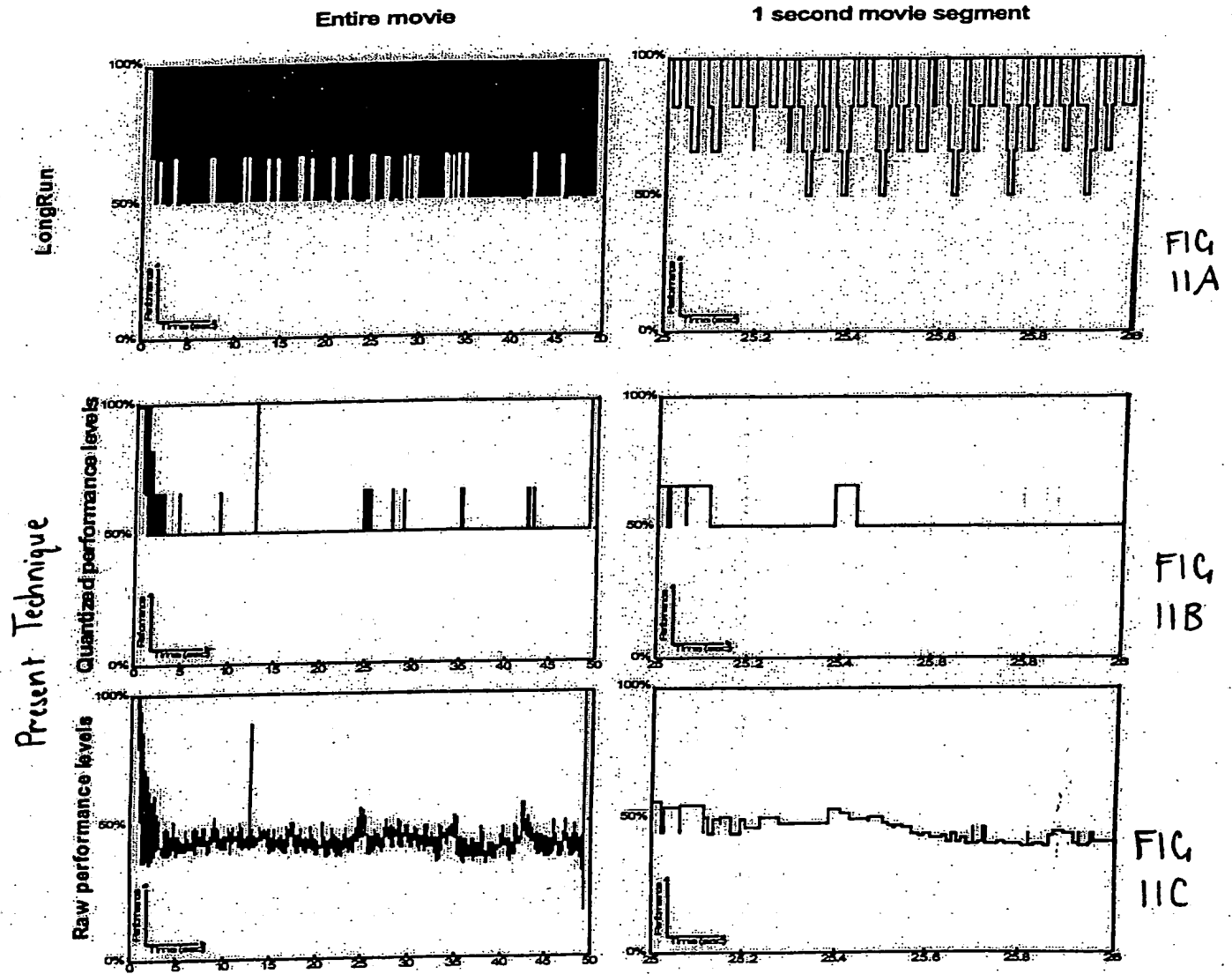


FIGURE 11

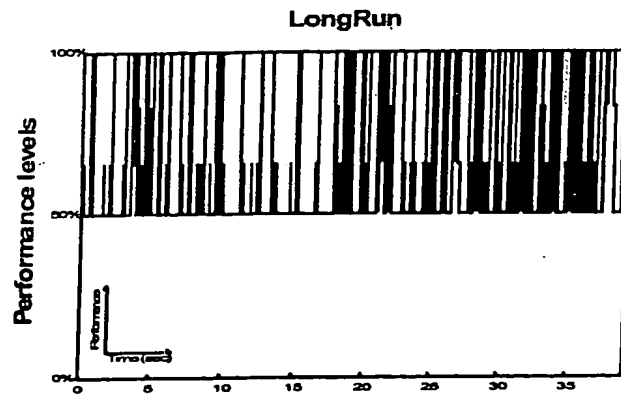


FIGURE 12A

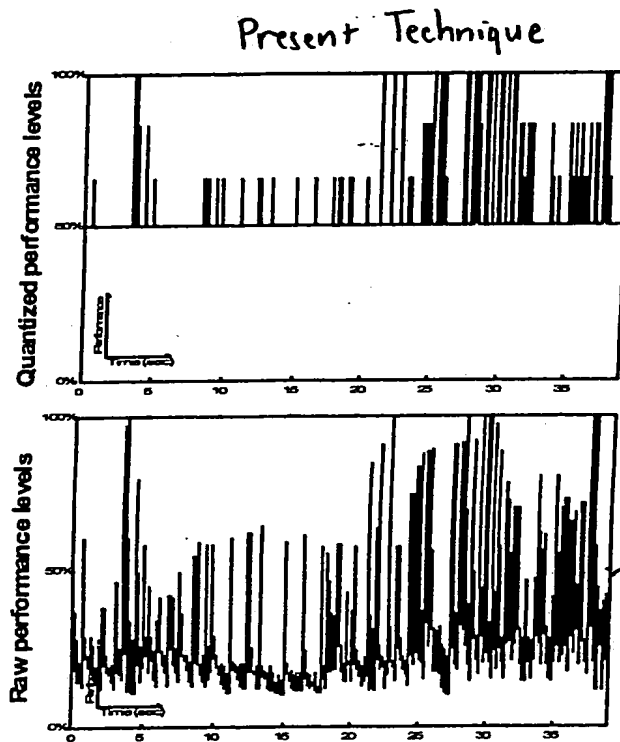


FIGURE 12B

FIGURE 12C

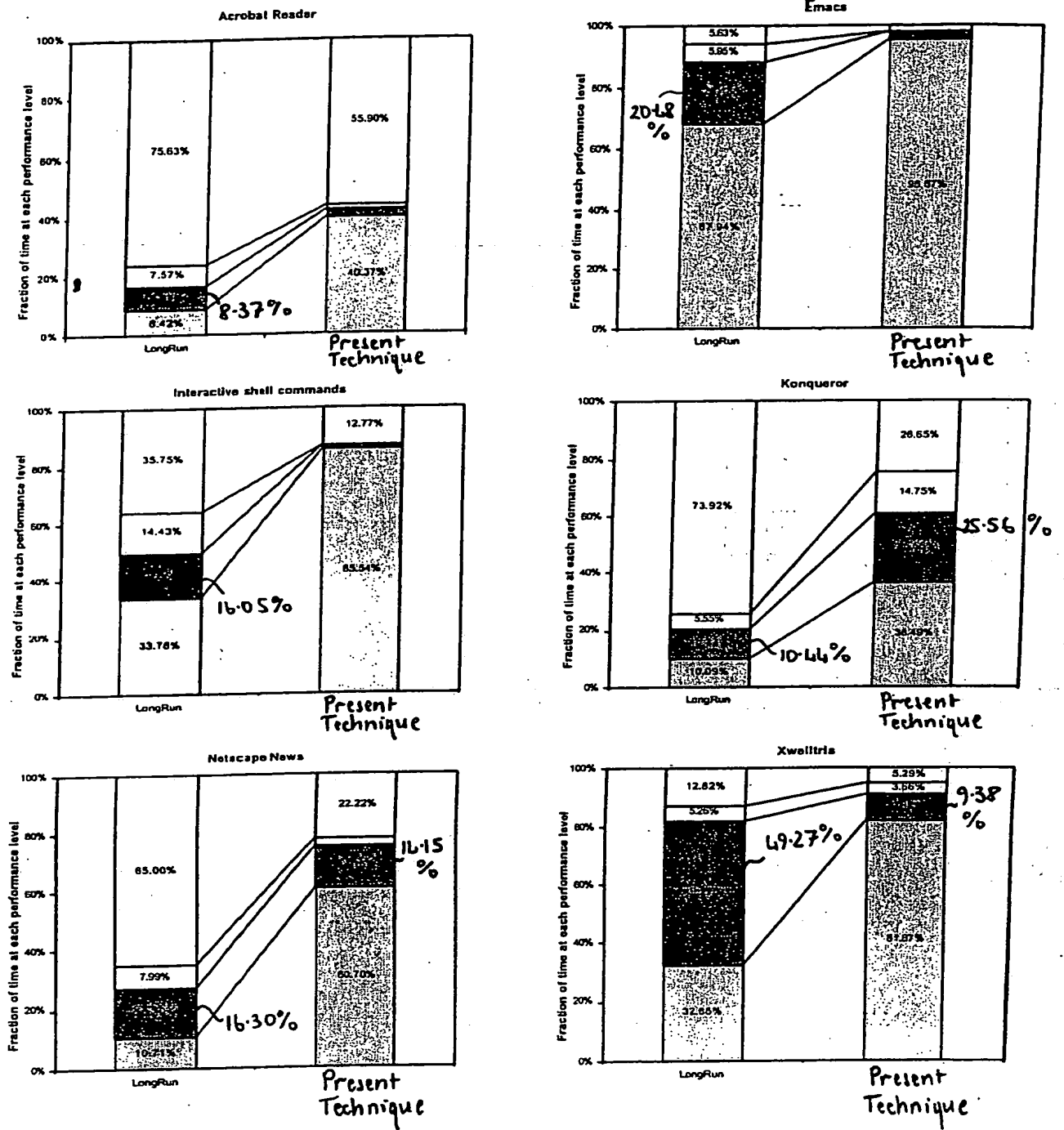


FIGURE 13